

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-13 (Canceled).

14. (Currently Amended): An isolated microorganism comprising:
a nucleic acid sequence that encodes the amino acid sequence of SEQ ID NO: 2, or
a nucleic acid sequence from *Alcaligenes*, which encodes D-aminoacylase and which
comprises the following sequence of restriction sites: Sal I, Bgl II and Pvu II ~~EcoR I~~ ~~Bgl II~~
~~Pvu II~~ ~~Hind III~~;

wherein said microorganism is zinc resistant, and

wherein the expression activity of D-amino acylase from said nucleic acid sequence in
said microorganism is enhanced in the presence of zinc ion.

15. (Previously Presented) The isolated microorganism of Claim 14 that comprises a
nucleic acid sequence that encodes SEQ ID NO: 2.

16. (Previously Presented) The isolated microorganism of Claim 14 that comprises
the nucleic acid sequence of SEQ ID NO: 1.

17. (Currently Amended) The isolated microorganism of Claim 14 that comprises a
D-amino acylase gene from *Alcaligenes*, the expression of the gene product of which is
enhanced in the presence of zinc ion, which encodes a D-aminoacylase and which comprises
the following sequence of restriction sites: Sal I, Bgl II and Pvu II ~~EcoR I~~ ~~Bgl II~~ ~~Pvu II~~
~~Hind III~~.

18. (Previously Presented) The isolated microorganism of Claim 14, wherein the D-aminoacylase-producing gene is obtained from *Alcaligenes xylosoxidans*, *subsp. xylosoxidans* strain A-6.

19. (Currently Amended) The isolated microorganism of Claim 14, wherein the D-aminoacylase-producing gene is has been modified by inserting a specific nucleotide sequence, GAAGGAA, (SEQ ID NO: 3), in the ribosome-binding site in the position of the ninth base upstream of the translation initiation point of the gene.

20. (Previously Presented) The isolated microorganism of Claim 14, wherein the D-aminoacylase-producing gene is modified by:

creating a *Hind III* recognition site upstream and downstream from the D-aminoacylase gene,
excising or purifying the resulting modified gene and
ligating the modified gene into an expression vector.

21. (Currently Amended) The isolated microorganism of Claim 14, wherein the zinc tolerance resistance of the host microorganism is such that the cell weight of the microorganism either increases, or decreases, within a range of 10% in a culture medium with 2 mM zinc added thereto on the basis of the cell weight measured at A660 nm in a zinc-free culture medium.

22. (Currently Amended) The isolated microorganism of Claim 14, wherein the zinc tolerance resistance of the microorganism is such that the cell weight of the microorganism either increases, or decreases, within a range of 20% in a culture medium with 5 mM zinc

added thereto on the basis of the cell weight measured at A660 nm in a zinc-free culture medium.

23. (Previously Presented) The isolated microorganism of Claim 14, which is *Escherichia coli*.

24. (Previously Presented) A process for producing D-aminoacylase comprising:
culturing the isolated microorganism of Claim 14 in a culture medium containing zinc and
recovering D-aminoacylase.

25. (Previously Presented) The process of Claim 24, further comprising culturing said microorganism in a medium containing a *tac* promoter-inducing substance.

26. (Previously Presented) The process of Claim 24, wherein said promoter-inducing substance is isopropyl thiogalactoside (IPTG) or lactose.

27. (Previously Presented) The process of Claim 24, wherein said culture medium has a concentration of lactose ranging from 0.1 to 1%.

28. (Currently Amended) An isolated nucleic acid sequence:
which encodes the amino acid sequence of SEQ ID NO: 2, or
which encodes a D-aminoacylase from *Alcaligenes*, and which comprises the following sequence of restriction sites: Sal I Bgl II and Pvu II ~~EcoR I~~ Bgl II Pvu II Hind III and

wherein said isolated nucleic acid sequence comprises an upstream ribosome binding site comprising GAAGGA (SEQ ID NO: 3).

29. (Previously Presented) The isolated nucleic acid sequence of Claim 28, which encodes the amino acid sequence of SEQ ID NO: 2.

30. (Previously Presented) The isolated nucleic acid sequence of Claim 28, further comprising an EcoR I site before said Sal I site and a Hind III site after the Pvu II site which is a D-aminoacylase gene from *Alcaligenes*, which comprises the following sequence of restriction sites: EcoR I – Bgl II – Pvu II – Hind III.

31. (Previously Presented) A vector comprising the nucleic acid sequence of Claim 28.

32. (Currently Amended) An isolated nucleic acid sequence from *Alcaligenes* that encodes a D-aminoacylase and which comprises the following sequence of restriction sites: Sal I – Bgl II – Pvu II and

wherein said nucleic acid sequence comprises an upstream ribosome binding site comprising GAAGGA (SEQ ID NO: 3).

33. (Previously Presented) A vector comprising the nucleic acid sequence of Claim 32.

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34. (Previously Presented) A zinc-resistant host cell comprising the nucleic acid sequence of Claim 32.